



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,296	04/23/2001	Yoshinori Aoyagi	122638/00	2997

7590 09/25/2003
McGinn & Gibb, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817

EXAMINER

NGUYEN, HOAN C

ART UNIT PAPER NUMBER

2871

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,296

Applicant(s)

AOYAGI ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/5/03 has been entered.

Election/Restrictions

Applicant's election with traverse of Group 1 in Paper No. 12 is acknowledged.

Applicant's arguments regarding the restriction requirement have been considered; however, the traversal was on the grounds that there is no serious burden on the Examiner in examining all of claims 1-13 together. This is not found persuasive since the process of "cutting apart first and second rectangular substrates" does not require in a LCD device of claims 1-6. Therefore, the process of "cutting apart first and second rectangular substrates" requires a different search and burden on examiner.

Therefore, the requirement is deemed proper and final.

Claims 1-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions and species, there being no allowable generic or linking claim.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation “forming **the electrodes, the spacers, the color filter and the witching elements** on or along “irregular surface” (rough surface) including line or belt-shaped protrusions” in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- A limitation “belt-shaped irregularity” having irregular surface in claims 7, 11 **did not disclose in the original specification** or in the drawings 4-6.
- In the dictionary provided by applicants, IRREGULAR defines as
 - without symmetry, without even shape formal arrangement,
 - not characterized by any fixed continuity or rate

However, figures 4-6 show the symmetrical line-shaped protrusions.

These symmetrical line-shape protrusions are arranged or distributed in the periodic pattern with fixed continuity (not irregular). Therefore, this seems contradicting with the definition of irregular in the dictionary provided by applicants. Therefore, the line-shape protrusions are **regular** pattern.

- A limitation "position of highest or smallest pressure" in claims 12 and 13 does not disclose in the original specification. The liquid crystal material tends to evenly distribute over substrate surfaces. Thus, in Fig 3, the area 26 and the area 27 is provided at different thickness of the substrates of the liquid crystal display panel 23 rather than at different pressure.
- There is no Figure showing **the electrodes, the spacers, the color filter and the witching elements** formed on "irregular surface" or "belt-shaped irregularity" including line -shaped protrusions as cited in claim 11. Fig. 7 shows only the electrodes, color filters, the spacer and the witching elements formed on the flat surface, which does **not include** line-shaped protrusions.
- Specification **does not disclose any step** of forming **the electrodes, the spacers, the color filter and the witching elements** on or along "irregular surface" (rough surface or "belt-shaped irregularity" including line-shaped protrusions) without using a planarization layer. Applicant should include clearly all steps of manufacture in both the specification and the method claims?

There is no known technique of forming **the electrodes, the spacers, th color filter and the witching elements** on or along "irregular surface" (rough

surface or curved surface as shown in Figs. 1B, 2B, 3B, 4B) including line-shaped protrusions without a planarization layer. Therefore, **the claims 7-13 may become non-enablement** if applicants do not include the steps of forming **the electrodes, the spacers, the color filter and the witching elements** on "irregular surface" including line-shaped protrusions. However, applicants should beware that these including steps may be New Subject Matter.

Allowable Subject Matter

Claims 7-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. The following is an examiner's statement of reasons for allowance:

Claims 7 and 11 are allowed since there is no prior art teaches a method of manufacturing a LCD device comprising:

- Cutting apart a first rectangular substrate from a first raw glass substrate such that a longer side direction of a first rectangular substrate is coincident with a drawing direction of the first raw glass substrate.
- Cutting apart a second rectangular substrate from a second raw glass substrate such that a longer side direction of a first rectangular substrate becomes orthogonal (perpendicular) to a drawing direction of the second raw glass substrate.

wherein line-shaped protrusions along a drawing direction of the first and second raw glass substrates.

Claims 8-10 and 12-13 are allowed since they depend on the allowed claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (703) 306-0472. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

HOAN C. NGUYEN
Examiner
Art Unit 2871

chn
September 9, 2003


JAMES DUDEK
PRIMARY EXAMINER